

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2000019307
 PUBLICATION DATE : 21-01-00

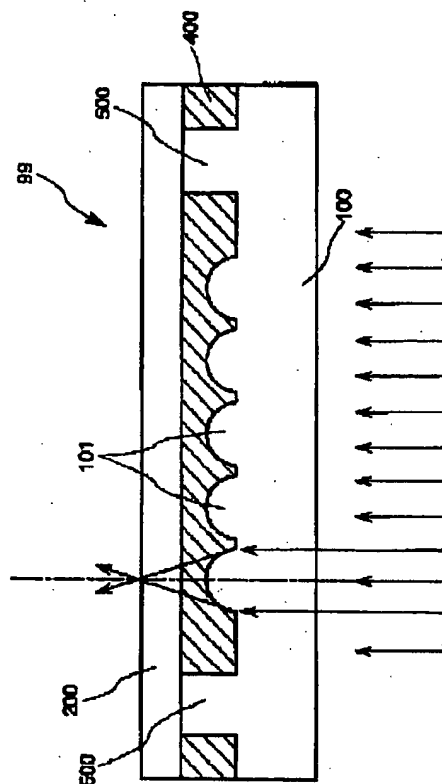
APPLICATION DATE : 23-02-99
 APPLICATION NUMBER : 11044980

APPLICANT : SEIKO EPSON CORP;

INVENTOR : YOTSUYA SHINICHI;

INT.CL. : G02B 3/00 B29D 11/00

TITLE : MANUFACTURE OF MICROLENS
 ARRAY SUBSTRATE, MICROLENS
 ARRAY SUBSTRATE, COUNTER
 SUBSTRATE FOR LIQUID CRYSTAL
 PANEL, LIQUID CRYSTAL PANEL,
 PROJECTION DISPLAY DEVICE AND
 MICROLENS SUBSTRATE WITH
 SUPPORTS



ABSTRACT : PROBLEM TO BE SOLVED: To provide a microlens array substrate uniformizing brightness on a whole picture and hardly causing brightness unevenness at the time of using it for a liquid crystal projector, etc.

SOLUTION: The microlens array substrate 99 is constituted of a first substrate 100 provided with many microlenses 101 and plural supports 500 and a second substrate 200 joined to the first substrate 100 through a resin layer 400. The supports 500 are provided on the outside of the area where the microlenses 101 are arranged, and are abutted on the second substrate 200 to function as spacers. Since the heights of respective supports are equal to each other, and their end surfaces are flat, the thickness unevenness of the microlens array substrate 99 is reduced.

COPYRIGHT: (C)2000,JPO